UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,634	06/30/2003	Jeffrey A. Aaron	60027.5049US01/BLS 02051	1410

7590 03/29/2007	EXAMINER
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SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 January 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-25</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-25</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>30 June 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

This action is in response to an amendment filed on January 22, 2007 for the

application of Aaron, for an "Automated diagnosis for electronic systems" filed June 30,

2003.

Claims 1-25 are pending in the application.

Claims 14-25 are rejected under 35 USC § 101.

Claims 1-25 are rejected under 35 USC § 103.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
conditions and requirements of this title.

Claims 14-25 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

As per claim 14, the limitation of "*System*", is non-statutory, since it is not tangibly

embodied. The claim language is directed to an arrangement of software.

A claimed "*module configured...*" is not of statutory subject matter. A module

configured to perform a method is merely a software arrangement. The configuration of

the operating system is a computer program claimed as computer listings per se, i.e.,

the descriptions or expressions of the programs are not physical "things." They are

neither computer components nor statutory processes, as they are not "acts" being

performed. Such claimed computer programs do not define any structural and functional

interrelationships between the computer program and other claimed elements of a

computer, which permit the computer program's functionality to be realized.

As per claims 17, and 23-25, a claimed limitation of "*database*" is not of statutory

subject matter.

A claimed database representing descriptive material per se or computer

programs representing computer listings per se data structures not claimed as

embodied in computer-readable media are descriptive material and are not statutory

because they are not capable of causing functional change in the computer.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over La

Pierre (U.S. Patent No. 5,951,611) in view of Glowny et al. (U.S. Patent No. 5,491,791).

As per claim 1, La Pierre discloses a method for providing automated diagnosis

(col. 3, lines 50-55) of problems for an electronic system, comprising:

Identifying recent configuration changes made to the electronic system that fall

within pre-established parameters (Fig. 1, element 16 and col. 4, lines 13-17)

Ranking the identified changes into potential causes (Fig. 1, element 18 and col.

4, lines 63-67 through col. 5, lines 1-10)

Verifying ranked potential causes to determine whether any of the ranked

potential causes may be an actual cause or contributor to the problem (col. 5, lines 24-

33)

And calculating distances (col. 4, lines 37-39) associated with the ranked

potential causes that correspond to a relative likelihood that potential causes (Fig. 1,

element 12 and col. 5, lines 24-33) may be a true cause (col. 3, lines 55-61).

La Pierre fails to explicitly disclose a computer network.

Glowny et al. teaches:

Identifying recent configuration changes made to a computer network (col. 6,

lines 6-16 and col. 11, lines 15-23).

It would have been obvious to one of ordinary skill in the art at the time the

invention to use the method of diagnostic trend analysis of La Pierre's and apply it to

Glowny et al.'s system and method of monitoring computing environment.

One of ordinary skill in the art at the time the invention would have been motivated to make the combination because La Pierre discloses a diagnostic trend analysis system for an engine (col. 2, lines 30-35) which can be modified (col. 6, lines 2-10). The disclosed engine in La Pierre's invention has various components and sensors connected together to automatically detect any engine data trend shifts or changes (Fig. 2 and col. 2, lines 39-51). Glowny et al. discloses a system and method of monitoring workstations in a computing environment by gathering information from individual workstations (col. 6, lines 50-57), which includes diagnostic and analysis logic (Fig. 1) and monitors different conditions of the computing units such as configuration changes (col. 6, lines 6-16 and col. 11, lines 15-23). The automatic diagnostic trend analysis detects viable symptoms providing a high degree of automation and accuracy (La Pierre's, col. 1, lines 46-55) and high performance (Glowny, col. 11, lines 8-10).

As per claim 2, La Pierre discloses formulating a list of possible causes based on or ordered in terms of the distances and presenting the list to a user (col. 5, lines 3-6, and 14-17 and col. 3, lines 55-61).

As per claim 3, La Pierre discloses discarding the ranked potential causes that violate a configurable distance threshold (col. 3, lines 66-67 through col. 4, lines 1-3).

As per claim 4, La Pierre discloses recording policy or configuration changes that occur (col. 5, lines 1-17).

As per claim 5, La Pierre discloses accumulating and ranking potential causes until all potential causes associated with the problem are received (col. 4, lines 25-60).

As per claim 6, La Pierre discloses searching a database having user records, vulnerability and reliability data to verify the potential causes (col. 4, lines 61-67 through col. 5, lines 1-10).

As per claim 7, La Pierre discloses interpreting the policies as needed to complete the verifying step (Fig. 1, element 18)

Glowny et al. teaches:

interpreting the computer network's policies (Fig. 2, element 216).

As per claim 8, La Pierre discloses a computer-readable medium having a program for providing automated diagnosis of problems (col. 3, lines 50-55) for an electronic system, for performing the steps of:

Logic configured to identify recent configuration changes made to the electronic system that fall within pre-established parameters (Fig. 1, element 16 and col. 4, lines 13-17)

Logic configured to rank the identified changes into potential causes (Fig. 1,

element 18 and col. 4, lines 63-67 through col. 5, lines 1-10)

Logic configured to verify ranked potential causes to determine whether any of

the ranked potential causes may be an actual cause or contributor to the problem (col.

5, lines 24-33)

Logic configured to calculate distances (col. 4, lines 37-39) associated with the

ranked potential causes that correspond to a relative likelihood that potential causes

(Fig. 1, element 12 and col. 5, lines 24-33) may be a true cause (col. 3, lines 55-61).

La Pierre fails to explicitly disclose a computer network.

Glowny et al. teaches:

Logic configured to (Fig. 1, elements 102, 122) Identifying recent configuration changes

made to a computer network (col. 6, lines 6-16 and col. 11, lines 15-23).

As per claim 9, La Pierre discloses logic configured to formulate a list of possible

causes based on the distances and logic configured to present the list to a user (col. 5,

lines 3-6, and 14-17 and col. 3, lines 55-61).

As per claim 10, La Pierre discloses logic configured to discard the ranked

potential causes that violate a configurable distance threshold (col. 3, lines 66-67

through col. 4, lines 1-3).

As per claim 11, La Pierre discloses logic configured to record policy or configuration changes that occur (col. 5, lines 1-17).

As per claim 12, La Pierre discloses logic configured to accumulate and rank the potential causes until all potential causes associated with the problem are received (col. 4, lines 25-60).

As per claim 13, La Pierre discloses logic configured to search a database having user records, vulnerability and reliability data to verify the potential causes (col. 4, lines 61-67 through col. 5, lines 1-10).

As per claim 14, La Pierre discloses a system for providing automated diagnosis of problems (col. 3, lines 50-55) for an electronic system, comprising:

A central diagnosis engine (Fig. 1) configured to include:

A rank estimator module configured to rank identified changes into potential causes (Fig. 1, element 18 and col. 4, lines 63-67 through col. 5, lines 1-10)

A verifier module configured to verify ranked potential causes to determine whether any of the ranked potential causes may be an actual cause or contributor to the problem (col. 5, lines 24-33)

And a distance (col. 4, lines 37-39) estimator module configured to calculate distances associated with the ranked potential causes that correspond to a relative

likelihood that potential causes (Fig. 1, element 12 and col. 5, lines 24-33) may be a true cause (col. 3, lines 55-61)

changes fall within pre-established parameters (col. 4, lines 53-67 through col. 5, lines 1-17)

La Pierre fails to explicitly disclose a computer network.

Glowny et al. teaches:

an adaptive logger (Fig. 1, elements 108, 128) operative coupled to the central diagnosis engine, the adaptive logger is configured to record policy or configuration changes made to a computer network (col. 6, lines 6-16 and col. 11, lines 15-23).

As per claim 15, La Pierre discloses an input parser/filter module operatively coupled to the central diagnosis engine (col. 2, lines 47-51), the input parser/filter including logic configured to receive policy or profile input from a user's processing device or policy-management systems and to convert the input into data usable by the central diagnosis engine (col. 5, lines 52-61).

As per claim 16, La Pierre discloses an input parser/filter module operatively coupled to the central diagnosis engine (col. 2, lines 47-51), the input parser/filter including logic configured to receive a problem indication and descriptive information from sensor and monitoring systems and to convert that input into data usable by the central diagnosis engine (col. 3, lines 48-58).

As per claim 17, La Pierre discloses a database populated with descriptive system information and a database structure configured as hierarchical database pages, each database page having a page index, data section and selector section, and wherein the data section is further configured to include the element reliability or vulnerability information and the selector section is further configured to include links to related database pages (col. 4, lines 66-67 through col. 5, lines 1-6).

As per claim 18, La Pierre discloses a problem accumulator module configured to receive problem data from the input parser/filter module (col. 2, lines 47-51) and to continue receive data until the problem is fully described (col. 5, lines 18-30).

As per claim 19, La Pierre discloses the central diagnosis engine further comprises a cause estimator module configured to interface with the adaptive logger and to identify any changes in policy or configuration associated with any available parameters of the problem (col. 5, lines 3-17).

As per claim 20, La Pierre discloses a possible cause accumulator module configured to receive and accumulate potential causes and rankings from the rank estimator module until the ranking is complete and potential causes associated with the problem are received (Fig. 1, element 18).

As per claim 21, La Pierre discloses a policy interpreter module configured to

provide details on the configuration to the verifier module as needed in the verification

process (Fig. 1, element 18).

Glowny et al. teaches:

Providing details on the computer network's configuration (col. 6, lines 6-16 and

col. 11, lines 15-23).

As per claim 22, La Pierre discloses a presentation module operatively coupled

to the central diagnosis engine and a user's processing device through a

communications network, the presentation module configured to summarize and format

at least one of accumulated possible causes, distances, probabilities, related reliability

or vulnerability results for utilization by the user's processing device (Fig. 3A and 3B).

As per claim 23, La Pierre discloses a database interface module operatively

coupled between the database, the database structure, and the central diagnosis

engine, the database interface module configured to enable provisioning and access to

the database and the database structure (Fig. 3A and 3B and col. 4, lines 66-67 through

col. 5, lines 1-6).

As per claim 24, La Pierre discloses the database comprises an element

descriptive database (EDD) (Fig. 3A and 3B and col. 4, lines 66-67 through col. 5, lines

1-6).

As per claim 25, La Pierre discloses the database structure comprises a hierarchical vulnerability database (HVD) structure (Fig. 3A and 3B and col. 4, lines 66-67 through col. 5, lines 1-6).

Response to Arguments

Applicant's arguments see pages 8-14, filed January 22, 2007 have been fully considered but they are not persuasive.

In response to applicant's arguments with regards to the 35 USC § 101 rejections of claims 14-25, Examiner states that the plain meaning of claim language is directed to arrangement of software. Applicant argues that a module could have hardware components based on page 7, lines 12-18 of the instant applications specification, however Examiner notes that although *in an alternative embodiment, logic is implemented in hardware,* **no hardware is disclosed in the above claims.**

As per claims 17, and 23-24, applicant argues, "The Guidelines state that if a computer program (or database structure) is being claimed as part of an otherwise statutory machine, the claim remains statutory irrespective of the fact that a computer program is included in the claim." Examiner states that **the claimed "database" is a part of a system of claim 14, therefore is directed to non-statutory subject matter.** M.P.E.P 2111.01 (II) states "In construing claim terms, the general meanings gleaned from reference sources, such as dictionaries, must always be compared against the use of the terms in context, and the intrinsic record must always be consulted to identify which of the different possible dictionary meanings is most consistent with the use of the words by the inventor.); *ACTV, Inc. v. The Walt Disney Company,* 346 F.3d 1082, 1092,

68 USPQ2d 1516, 1524 (Fed. Cir. 2003)". And further "If more than one extrinsic

definition is consistent with the use of the words in the intrinsic record, the claim terms

may be construed to encompass all consistent meanings. *Tex. Digital,* 308 F.3d at

1203, 64 USPQ2d at 1819. See also *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336,

1342, 60 USPQ2d 1851, 1854 (Fed. Cir. 2001)".

In response to applicant's arguments with regards to independent claims 1, 8 and

14, that the combination of the LaPierre and Glowny references is improper and that La

Pierre and Glowny are unrelated, Examiner respectfully disagrees.

La Pierre discloses a diagnostic trend analysis system for an engine (col. 2, lines

30-35), which can be modified (col. 6, lines 2-10). The disclosed engine in La Pierre's

invention has various components and sensors connected together to automatically

detect any engine data trend shifts or changes (Fig. 2). Glowny et al. discloses a system

and method of monitoring workstations in a computing environment by gathering

information from individual workstations (col. 6, lines 50-57), which includes diagnostic

and analysis logic (Fig. 1) and monitors different conditions of the computing units such

as configuration changes (col. 6, lines 6-16 and col. 11, lines 15-23).

La Pierre and Glowny et al.'s inventions are related as both inventions disclose

automatic diagnostics of problems in a system (La Pierre, col. 3, lines 50-55) and

(Glowny, col. 3, lines 3-6). Both inventions analyze data (La Pierre, col. 5, lines 41-50)

and (Glowny, Fig. 2, element 216) gathered from various components of the system (La

Pierre, col. 2, lines 39-51) and (Glowny, col. 6, lines 50-57). The automatic diagnostic
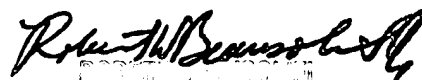
trend analysis detects viable symptoms providing a high degree of automation and accuracy (La Pierre's, col. 1, lines 46-55) and high performance (Glowny, col. 11, lines 8-10).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elmira Mehrmanesh whose telephone number is (571) 272-5531. The examiner can normally be reached on 8-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W. Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).